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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/716,563

11/20/2003

Dae-Seob Kweon

102-1011

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01/26/2006

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EXAMINER

LEE, SUSAN SHUK YIN

ART UNIT

PAPER NUMBER

2852

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/716,563	<b>Applicant(s)</b> KWEON, DAE-SEOB	
	<b>Examiner</b> Susan S. Lee	<b>Art Unit</b> 2852	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7-10, 12, 13 and 22-25 is/are rejected.
- 7) ☒ Claim(s) 11 and 14-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by Kondo (Japan, 59-172665).

Kondo discloses an image forming apparatus having a photoconductive medium 5; a developing roller 2 rotating in contact with the photoconductive medium 5; a developing unit frame supporting the developing roller 2 and storing toner 8 inside a receptacle; a toner supply roller 11 supplying the toner to the developing roller 2; and a cleaning unit 14 used to remove from the toner supply roller 11 the toner that remains after the toner is transferred from the toner supplying roller 11 to the developing roller 2. Note abstract and Fig. 2. Since the cleaning unit 14 is stationary and the toner supplying roller 11 rotates, the movement caused by friction must somehow shake a portion of the toner supplying roller 11. Also, since there is a magnetic field created from magnetic generating means in the developing unit (magnets 16 and 12), the toners that are on the surface of the rollers would be in the form of toner brushes or furs.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-10, 12, 13, 22, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi (Japan, 08-146763) in view of Suzuki (Japan, 63-075778).

Takeuchi discloses an image forming apparatus having a photoconductive medium D; a developing roller 6 rotating in contact with the photoconductive medium D; a developing unit frame 1 supporting the developing roller 6 and storing toner T inside a receptacle; a toner supply roller 8 rotating in contact with the developing roller 6 with a nip with the developing roller 6 to supply toner T to the developing roller 6; and a cleaning unit 14 used to remove from the toner supply roller 8 the toner that remains after the toner is transferred from the toner supplying roller 8 to the developing roller 6. Note abstract. Since the cleaning unit 14 is stationary and the toner supplying roller 8 rotates, the movement caused by friction must somehow shake a portion of the toner supplying roller 8.

Takeuchi differs from the instant invention by not disclosing the cleaning unit 14 as a cleaning roller.

Suzuki discloses a cleaning roller 4, made of a soft material, is used to rub against the peripheral surface of the developing roller 2 so that the surface of the roller 2 is cleaned off of toner in a short period of time. Note abstract. Since the cleaning roller 4 abuts the surface of roller 2 so to rub against the surface of the developing roller 2, the roller 4 must somehow shake off the toner remaining on the surface of the roller 2.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Takeuchi with that of Suzuki by replacing the cleaning unit of Takeuchi with the cleaning roller of Suzuki so that the cleaning of the toner supply roller would be more efficient and would take less time.

***Allowable Subject Matter***

Claims 11 and 14-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-6 are allowed over the prior art of record.

***Response to Arguments***

Applicant's arguments with respect to claims 1, 7, 9-13, and 21-25 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamamoto et al., Haneda, Ogawa et al., and Hodoshima et al. disclose art in developing devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan S. Lee whose telephone number is 571-272-2137. The examiner can normally be reached on Mon. - Fri., 10:30-8:00, Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Art Grimley can be reached on 571-272-2136 or 571-272-2800 (Ext. 52). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Susan S. Lee  
Primary Examiner  
Art Unit 2852

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